

Remarks

Claims 1, 46 and 51 have been amended.

The Examiner has rejected applicant's claims 1-11, 13-21, 46-48 and 51 under 35 USC 112, first paragraph, as failing to comply with the written description requirement. The Examiner has argued that the limitation "hierarchized" tree in claims 1 and 46 does not have a basis in the specification as filed and constitutes new matter.

In particular, the Examiner has stated that the closest discussion of a "hierarchized" tree found in the specification is the discussion of determination trees (e.g., page 12 of the specification), but has argued that a "hierarchized" tree has a different scope than a determination tree since a "hierarchized" tree does not necessarily have to lead to a determination and a determination tree does not necessarily have to be hierarchical. Applicant respectfully disagrees with the Examiner's arguments and submits that the recitation "hierarchized tree" is supported by applicant's original disclosure in applicant's FIGS. 6A and 6B, and the corresponding description on pages 12 and 13 of applicant's specification (see, e.g. lines 13-14 of page 12 in which it is stated that "the tree has four child nodes". Thus, applicant's FIGS. 6A and 6B show discrimination trees arranged as hierarchical, or ordered trees. Accordingly, applicant's original disclosure clearly shows and describes a hierarchized tree and the limitation "hierarchized" does not constitute new matter.

However, in order to expedite prosecution of the present application, applicant has amended applicant's independent claims 1 and 46 to delete the limitation "hierarchized," thereby obviating the Examiner's rejection with respect to these claims.

The Examiner has also rejected applicant's claim 51 under 35 USC 112, second paragraph, as being incomplete for omitting essential steps so as to amount to a gap between

the steps. In particular, the Examiner has argued that the applicant's claim 51 omits the method steps of designing a probe after the probe candidate is obtained by performing the method of claim 1. Applicant has rewritten applicant's claim 51 to recite a method of designing a probe that includes the steps of determining and outputting the probe candidate in accordance with claim 1 and using the probe candidate to design a probe. Applicant believes that applicant's amended claim 51 is now in compliance with 35 USC 112, second paragraph, and the Examiner's rejection is respectfully traversed.

The Examiner has also rejected applicant's claims 1-11, 13-21, 46-48 and 51 under 35 USC 101 as being directed to non-statutory subject matter. The Examiner has argued that applicant's claims do not require any performance of a result outside a computer. More particularly, in response to applicant's arguments submitted on August 12, 2005, the Examiner has argued that the step of outputting recited in applicant's claims 1 and 46 does not necessarily require a physical performance outside the computer since the outputting may occur between databases or between internal hard drives.

Applicant has amended applicant's independent claims 1 and 46 to better define applicant's invention so as to recite the output step of outputting the probe candidate to an external storage apparatus, a display apparatus or a printer. The method and apparatus recited in applicant's amended independent claims 1 and 46 now require a performance of a concrete and tangible result, i.e. outputting of the probe candidate, that occurs outside of the computer, i.e. outputting to an external storage apparatus, a display apparatus or a printer. Applicant's amended independent claims 1 and 46, and their respective dependent claims, are therefore directed to statutory subject matter in compliance with 35 USC 101, and the Examiner's rejections are respectfully traversed.

In view of the above, it is submitted that applicant's claims, as amended, are directed to statutory subject matter and are in compliance with 35 USC 112, first and second paragraphs. Accordingly, reconsideration and allowance of the claims are respectfully requested.

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Respectfully submitted,



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